

Information Alert
Conifer-Aspen Rust Outbreak in the White Mountains of Arizona
October 2007

Some aspen stands in the White Mountains will not be golden this fall due to a leaf-infecting fungus known as conifer-aspen rust. During wet summers this fungus builds to outbreak levels and can cause the leaves of susceptible aspen clones to shrivel and drop prematurely. The conifer-aspen rust fungus benefited from the high level of rainfall that fell in parts of the White Mountains this spring and summer. Some of the affected areas include Green's Peak & Sunrise, also east of Big Lake & reports from Escudilla Mtn. have been received. Scattered, infected ornamental plantings of aspens in Greer & Lakeside-Pinetop were also noted.



The life cycle of the conifer-aspen rust fungus is very complex. In the early spring, infected dead aspen leaves on the ground release fungal spores that infect Douglas-fir. A different spore produced on Douglas-fir is wind disseminated and infects aspen leaves in the summer. Yet another type of spore appears on both sides of infected aspen leaves. This is called the repeating stage because these spores germinate to reinfect aspen leaves throughout the growing season. The more favorable the climate the more fungus on infected leaves. Infected leaves start to turn yellow before non-infected leaves and are more susceptible to frost damage.



Although growth loss occurs in heavily infected trees, trees typically recover from one season of infection. However, we may see further decline in trees already weakened from the long-term drought.

Please refer to the "USDA Field Guide to Insects & Diseases of AZ & NM Forests" at www.fs.fed.us/r3/resources/health/field-guide/fd/rust.shtml .

For further information about this disease, or other forest health concerns in the area, contact: Bob Celaya, Forest Health Specialist, Office of the State Forester, 602-771-1415.